

REMARKS

In the Office Action mailed February 20, 2007, the Examiner objected to claims 10 and 50 based on informalities; rejected claims 1, 6, 7, 28, 49, and 50 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,578,223 to Bene et al. (Bene); rejected claims 25-27 and 29 under 35 U.S.C. § 103(a) as being unpatentable over Bene; rejected claims 2-5, 12-21, and 38-40 under 35 U.S.C. § 103(a) as being unpatentable over Bene in view of U.S. Patent No. 4,190,426 to Ruschke; rejected claims 8-11, 22-24, and 41-42 as being unpatentable over Bene in view of U.S. Patent No. 5,447,417 to Kuhl et al. (Kuhl); rejected claims 30-32 and 43 under 35 U.S.C. § 103(a) as being unpatentable over Bene in view of U.S. Patent No. 5,308,333 to Skakoon; rejected claims 34-37 and 44-48 under 35 U.S.C. § 103(a) as being unpatentable over Bene in view of Ruschke, and further in view of Skakoon; rejected claim 33 under 35 U.S.C. § 103(a) as being unpatentable over Bene in view of Kuhl, and further in view of Skakoon; and provisionally rejected claims 1-48 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-40 of copending Application No. 10/520,667.

By this Reply, Applicants have amended claims 1, 9, 11, 12, 26, 27, 29, 33, 35, 38-41, and 50 and have canceled claims 2-6, 8, 10, 25, 30-32, 34, and 43-49. Thus, claims 1, 7, 9, 11-24, 26-29, 33, 35-42, and 50 are currently pending in this application. No new matter is added by this Reply.

Claim 1 has been amended to further incorporate limitations from previously presented claims 2-5, 8, 10, 25, and 30, for example. Amended claim 1 recites, among other things, a device having a "rigid support holding opposite ends of a first length of tubing of said line designed to interact with said movement means, said first length of

tubing having a curved shape and a predetermined axial extension,” the device also having a “separator comprising a containing body, said rigid support comprising a first portion forming said containing body, said containing body having . . . at least one hydrophilic membrane . . . [and] at least one hydrophobic membrane . . . [and a] check valve being arranged internally of said containing body.” Amended claim 1 further recites “said hydrophobic membrane being situated, in a use configuration of said first length of tubing, in an upper zone of an upstream portion of said fluid passage portion, said upstream portion being located upstream of said hydrophilic membrane.”

In the Office Action, the Examiner objected to claims 10 and 50 based on informalities. Applicants submit that this objection has been rendered moot by Applicants’ cancellation of claim 10 and amendment of claim 50. Accordingly, Applicants ask the Examiner to withdraw this objection.

Applicants respectfully traverse the Examiner’s rejection of claims 1, 6, 7, 28, 49, and 50 under 35 U.S.C. § 102(b) as being anticipated by Bene. Applicants submit that this rejection has been rendered moot by the amendment of claim 1. To the extent that this rejection applies to amended claim 1, however, Applicants respond as follows.

Bene does not disclose or suggest each and every limitation of amended claim 1. The Examiner contends that Bene discloses “an infusion system comprising a container 10 with an infusion solution, a scale 23 . . . an infusion line or transport line 11 . . . a pump 12 . . . a control unit 25 . . . and a bubble trap or separator 8.” (Office Action at 2-3.)

The Examiner concedes, however, that Bene fails to disclose a “separator comprising various membranes within the separator or drip chamber.” (Office Action at 4.) Thus, Bene does not disclose or suggest a “separator comprising a containing body, said rigid

support comprising a first portion forming said containing body, said containing body having . . . at least one hydrophilic membrane . . . [and] at least one hydrophobic membrane . . . [and a] check valve being arranged internally of said containing body,” as recited in amended claim 1. The Examiner also concedes that Bene fails to disclose a “rigid support or manifold that supports the tubing near the pump.” (Office Action at 6.) Thus, Bene does not disclose or suggest a “rigid support holding opposite ends of a first length of tubing of said line designed to interact with said movement means, said first length of tubing having a curved shape and a predetermined axial extension,” as recited in amended claim 1. Therefore, amended claim 1 is allowable over Bene. Accordingly, claims 7, 9, 11-24, 26-29, 33, 35-42, and 50 are allowable at least due to their dependence from allowable amended claim 1.

Applicants respectfully traverse the Examiner's rejection of claims 25-27 and 29 under 35 U.S.C. § 103(a) as being unpatentable over Bene. Applicants submit that this rejection has been rendered moot by the cancellation of claim 25 and the amendment of claim 1. As discussed above, Bene fails to disclose or suggest each and every limitation of amended claim 1. Claims 26, 27, and 29 each depend from allowable amended claim 1. Accordingly, claims 26, 27, and 29 are allowable at least due to their dependence from allowable amended claim 1.

Applicants respectfully traverse the Examiner's rejection of claims 2-5, 12-21, and 38-40 under 35 U.S.C. § 103(a) as being unpatentable over Bene in view of Ruschke. Applicants submit that this rejection has been rendered moot by the cancellation of claims 2-5 and the amendment of claim 1, from which claims 12-21 and 38-40 depend. To the extent this rejection applies to currently pending claims 12-21

and 38-40, however, Applicants respond as follows. The combination of Bene in view of Ruschke does not disclose each and every limitation of amended claim 1, for example. The Examiner contends that Ruschke “discloses a blood-gas separator that vents gas in a liquid stream. The separator comprises . . . a filter or selector means comprising a hydrophilic filter 24 . . . [and] a selector or hydrophobic membrane 40 The filters are arranged within a fluid passage with the hydrophobic membrane located at the upper section of the hydrophilic membrane.” (Office Action at 5.) Ruschke, however, does not disclose or suggest a “hydrophobic membrane being situated, in a use configuration of said first length of tubing, in an upper zone of an upstream portion of said fluid passage” (emphasis added), as recited in amended claim 1, which improves the ease of use of the device. Ruschke also does not disclose or suggest a “rigid support holding opposite ends of a first length of tubing of said line designed to interact with said movement means, said first length of tubing having a curved shape and a predetermined axial extension,” as recited in amended claim 1. Nor does Ruschke disclose a “separator comprising a containing body, said rigid support comprising a first portion forming said containing body, said containing body having . . . at least one hydrophilic membrane . . . [and] at least one hydrophobic membrane . . . [and a] check valve being arranged internally of said containing body” (emphasis added), as recited in amended claim 1. Therefore, Ruschke fails to cure the deficiencies of Bene, as discussed above. Accordingly, amended claim 1 is allowable over Bene in view of Ruschke for at least these reasons. Thus, claims 12-21 and 38-40 are allowable at least due to their dependence from allowable amended claim 1.

Applicants respectfully traverse the Examiner's rejection of claims 8-11, 22-24, and 41-42 as being unpatentable over Bene in view of Kuhl. Applicants submit that this rejection has been rendered moot by the cancellation of claims 8 and 10 and the amendment of claim 1, from which claims 9, 11, 22-24, and 41-42 depend. To the extent this rejection applies to currently pending claims 9, 11, 22-24, and 41-42, however, Applicants respond as follows. The combination of Bene in view of Kuhl does not disclose each and every limitation of amended claim 1, for example. The Examiner contends that Kuhl discloses "a fluid pumping apparatus with a molded manifold or support 400 that supports a length of tubing 415 . . . [and] comprises an output port 411 to which a second length of tubing is attached to complete the circuit." (Office Action at 7.) Kuhl, however, does not disclose or suggest a "separator comprising a containing body, said rigid support comprising a first portion forming said containing body, said containing body having . . . at least one hydrophilic membrane . . . [and] at least one hydrophobic membrane . . . [and a] check valve being arranged internally of said containing body," as recited in amended claim 1. Therefore, Kuhl fails to cure the deficiencies of Bene, as discussed above. Accordingly, amended claim 1 is allowable over Bene in view of Kuhl for at least these reasons. Thus, claims 9, 11, 22-24, and 41-42 are allowable at least due to their dependence from allowable amended claim 1.

Applicants traverse the Examiner's rejection of claims 30-32 and 43 under 35 U.S.C. § 103(a) as being unpatentable over Bene in view of Skakoon. Applicants submit that this rejection has been rendered moot by the cancellation of claims 30-32 and 43. Accordingly, Applicants ask the Examiner to withdraw this rejection.

Applicants respectfully traverse the Examiner's rejection of claims 34-37 and 44-48 under 35 U.S.C. § 103(a) as being unpatentable over Bene in view of Ruschke, and further in view of Skakoon. Applicants submit that this rejection has been rendered moot by the cancellation of claims 34 and 44-48 and the amendment of claim 1, from which claims 35-37 depend. To the extent this rejection applies to currently pending claims 35-37, however, Applicants respond as follows. The combination of Bene in view of Ruschke, and further in view of Skakoon, does not disclose each and every limitation of amended claim 1, for example. The Examiner contends that Skakoon "discloses an infusion set . . . [that] includes an air filter chamber 32 with an exit port that incorporates a one-way valve 46 in order to prevent reverse flow through the tube set." (Office Action at 8.) The Examiner concedes, however, that Skakoon does not disclose or suggest "the position of the check valve within the housing of the separator." (Id.) Thus, Skakoon does not disclose or suggest a "rigid support comprising a first portion forming said containing body, said containing body having . . . at least one hydrophilic membrane . . . [and] at least one hydrophobic membrane . . . [and a] check valve being arranged internally of said containing body," as recited in amended claim 1. The location of the check valve and air separator within the containing body of the rigid support holding the first length of tubing permits the reduction of the overall dimensions of the device and improves its usability. Moreover, Skakoon does not disclose or suggest a "hydrophobic membrane being situated, in a use configuration of said first length of tubing, in an upper zone of an upstream portion of said fluid passage," as recited in amended claim 1, which improves the ease of use of the device. Therefore, Skakoon fails to cure the above-mentioned deficiencies of Bene in view of Ruschke.

Accordingly, amended claim 1 is allowable over Bene in view of Ruschke, and further in view of Skakoon. Thus, claims 35-37 are also allowable at least due to their dependence from allowable amended claim 1.

Applicants respectfully traverse the Examiner's rejection of claim 33 under 35 U.S.C. § 103(a) as being unpatentable over Bene in view of Kuhl, and further in view of Skakoon. Applicants submit that this rejection has been rendered moot by the amendment of claim 1, from which claim 33 depends. To the extent this rejection applies to currently pending claim 33, however, Applicants respond as follows. The combination of Bene in view of Kuhl, and further in view of Skakoon, does not disclose each and every limitation of amended claim 1, for example. As discussed above, amended claim 1 is allowable over Bene in view of Kuhl. The Examiner has cited Skakoon for disclosing "a fluid infusion system with a check valve." (Office Action at 9.) Skakoon, however, fails to cure the deficiencies of Bene in view of Kuhl. Thus, amended claim 1 is allowable over Bene in view of Kuhl, and further in view of Skakoon. Accordingly, claim 33 is allowable at least due to its dependence from allowable amended claim 1.

Finally, Applicants respectfully traverse the Examiner's rejection of claims 1-48 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-40 of copending Application No. 10/520,667. Applicants submit that claims 1-40 of copending Application No. 10/520,667 do not relate to an infusion system including a weighing device and a control unit associated with the weighing device, as recited in amended claim 1, for example, and thus the currently pending claims are

patentably distinct from those claims. Accordingly, Applicants ask that the Examiner withdraw the provisional obviousness-type double patent rejection.


In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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